Linux

CPT-201

http://cpt201.hubner.org/

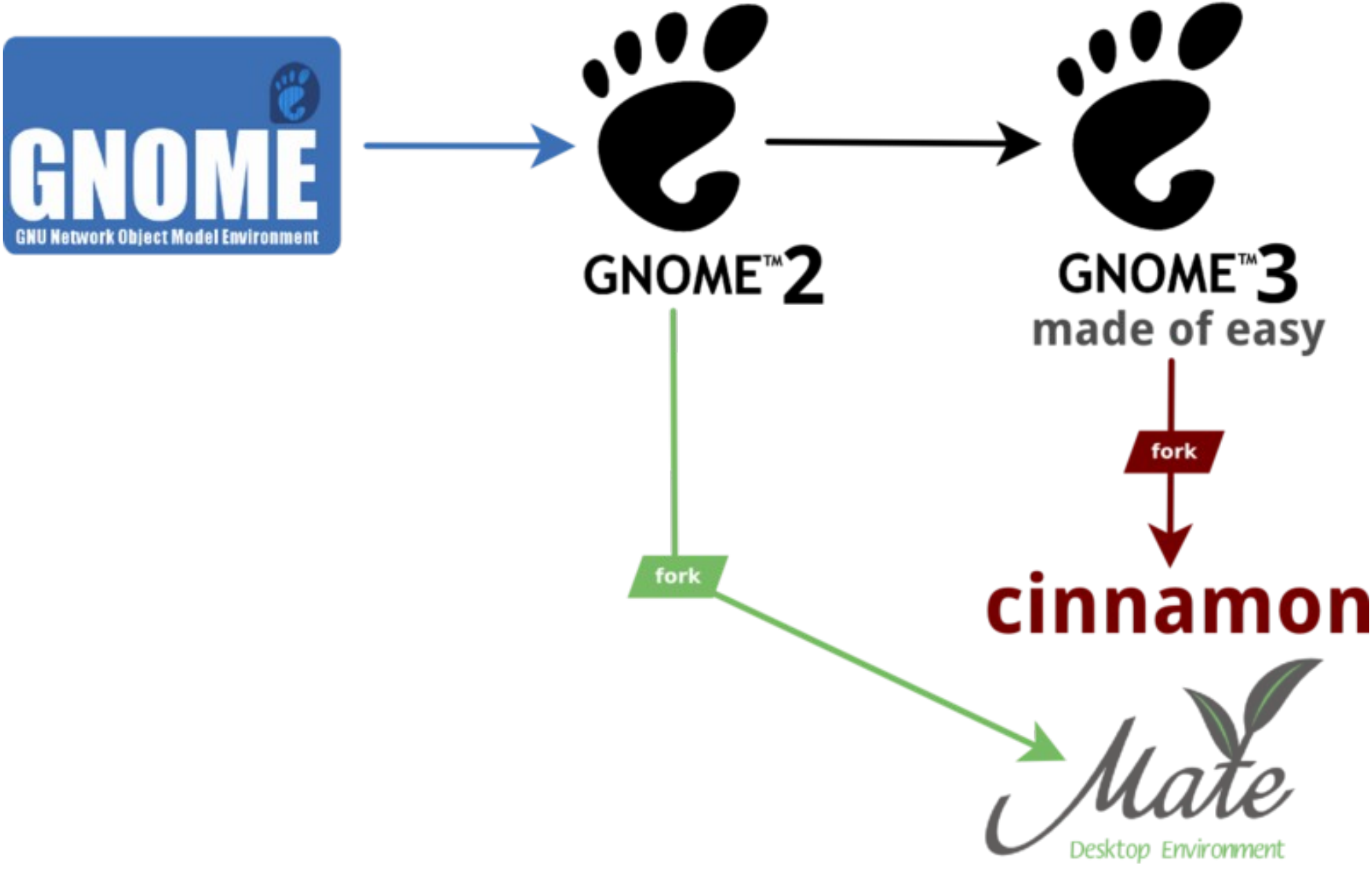
Taking a Screenshot in Gnome

- **Whole Screen**

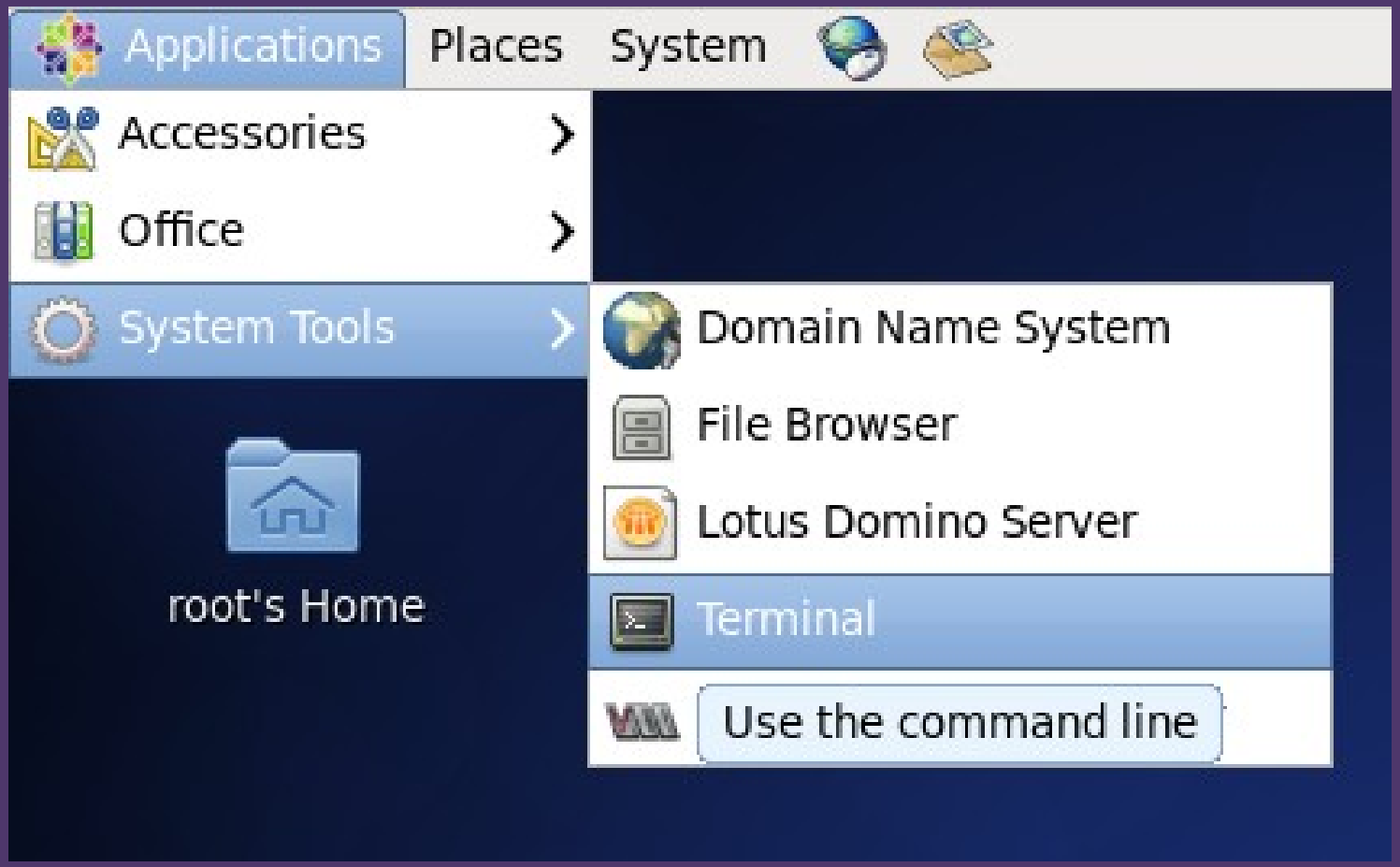
  Press PrintScreen

- **Current Window**

  Press ALT+PrintScreen


GNOME
GNU Network Object Model Environment
GNOME™2
GNOME™3
made of easy
fork
cinnamon
fork
Mate
Desktop Environment

Install gconf-editor



yum -y install gconf-editor

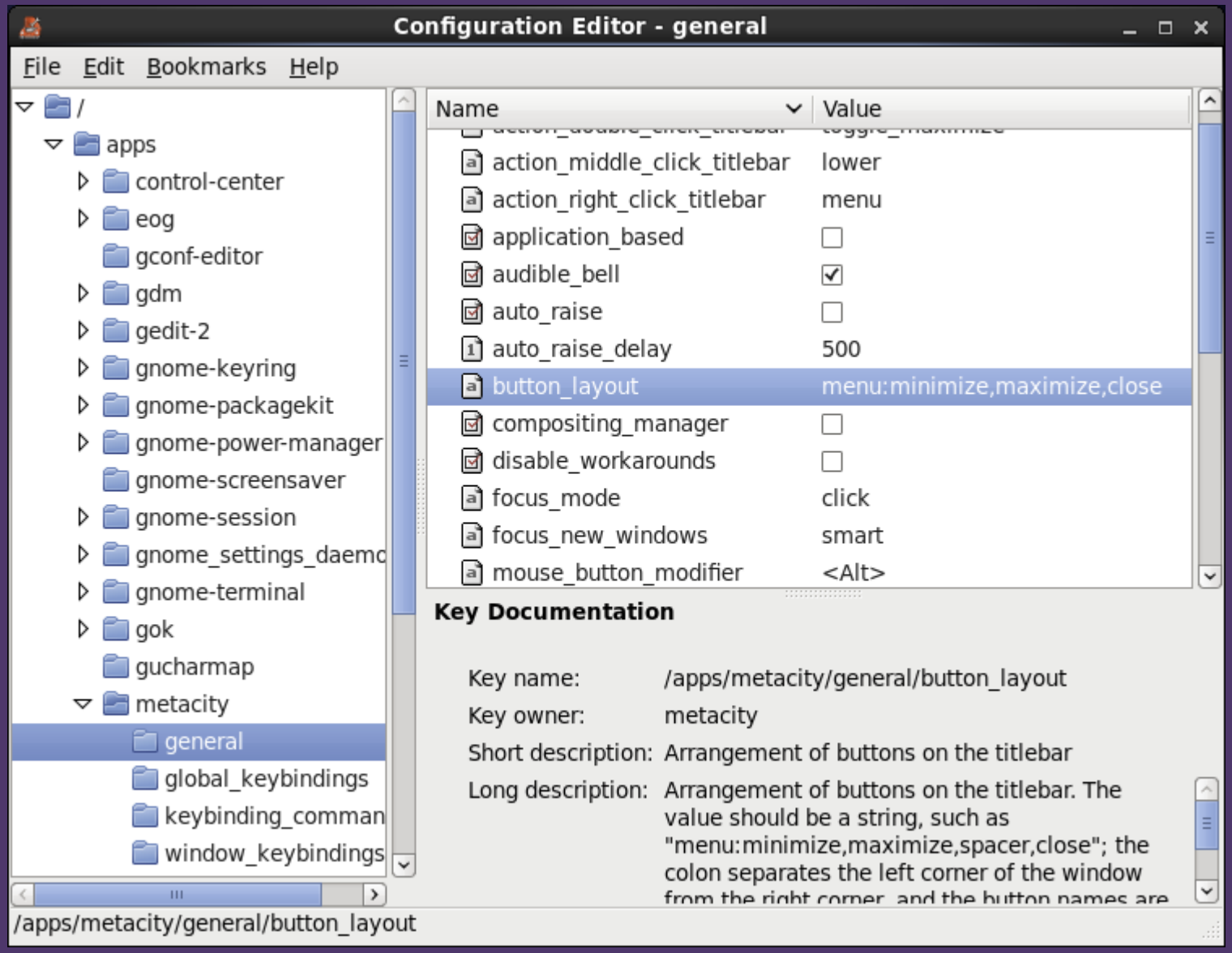
Launch gconf-editor

gconf-editor

gconf contains settings

- /
  - apps/
    - metacity/
      - general/

Change the Window Button Layout

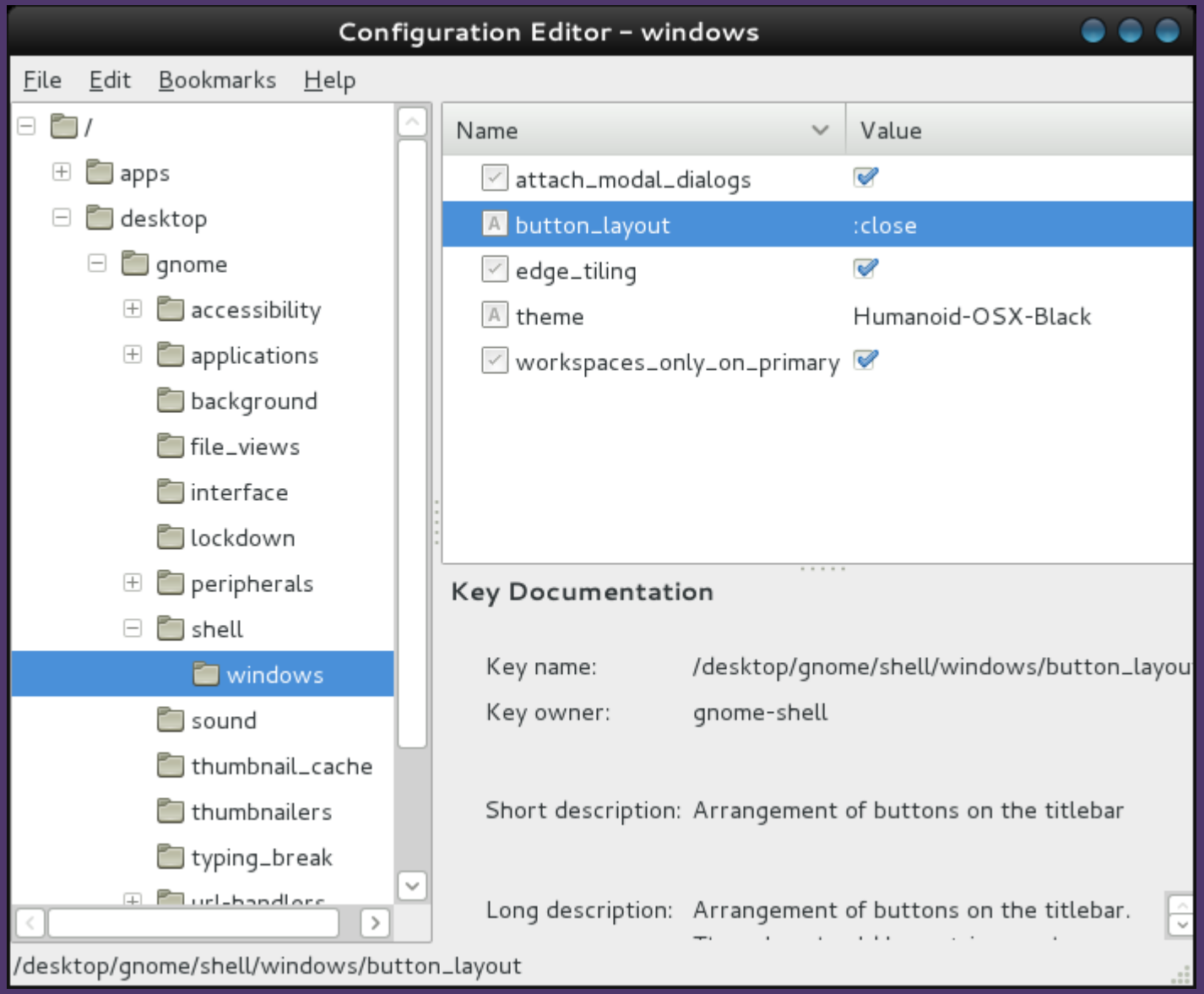


Metacity Window Button Layout

menu:minimize,close

minimize,close:menu

Change the Window Button Layout



Take a Screenshot of your Buttons

- **Whole Screen**

  Press PrintScreen

- **Current Window**

  Press ALT+PrintScreen

Download a Metacity Theme

http://gnome-look.org/

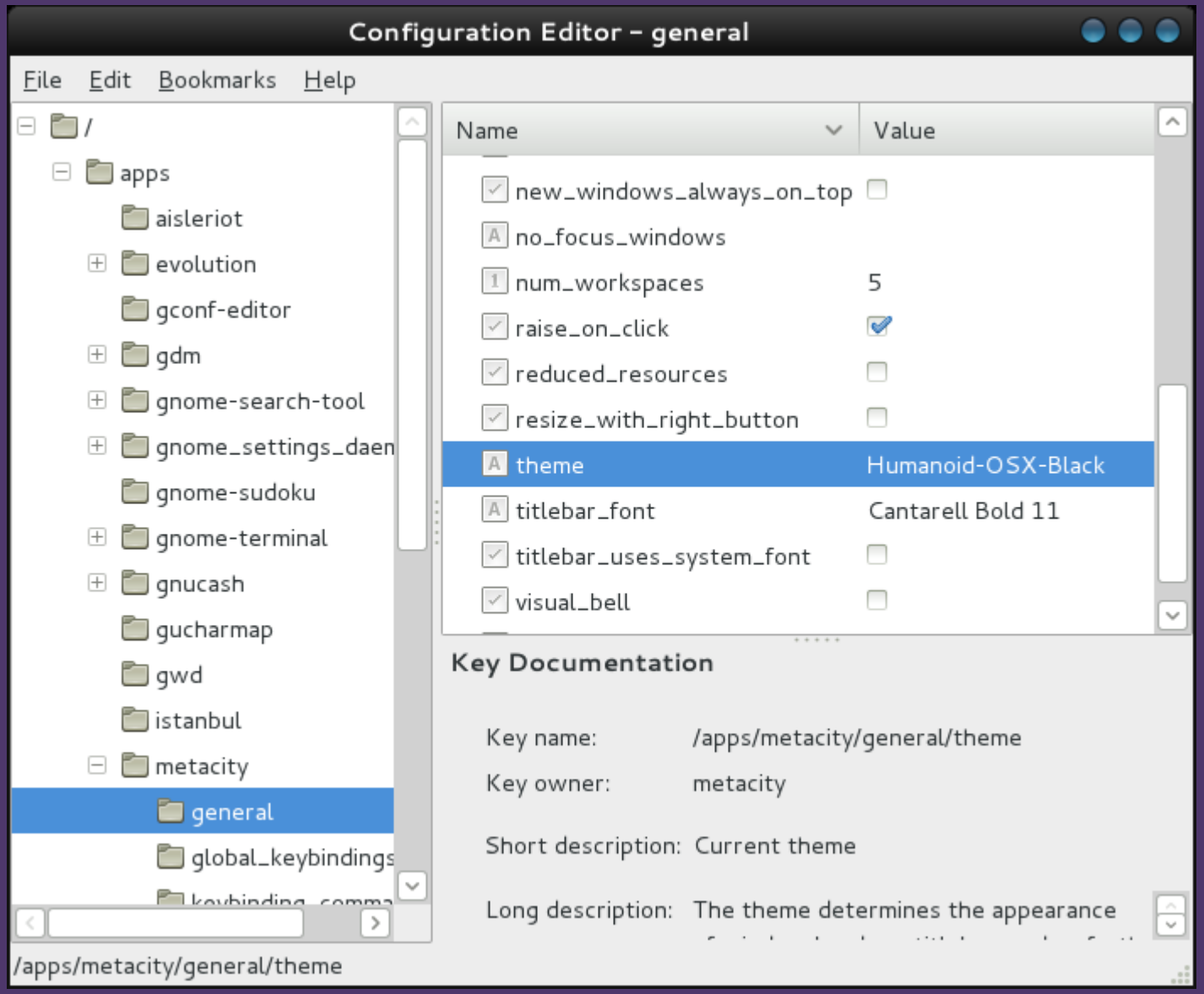
Devo recommends

"Humanoid OSX Black"

or

"Tango"

Change the Window Theme



Take a Screenshot of your Theme

- **Whole Screen**

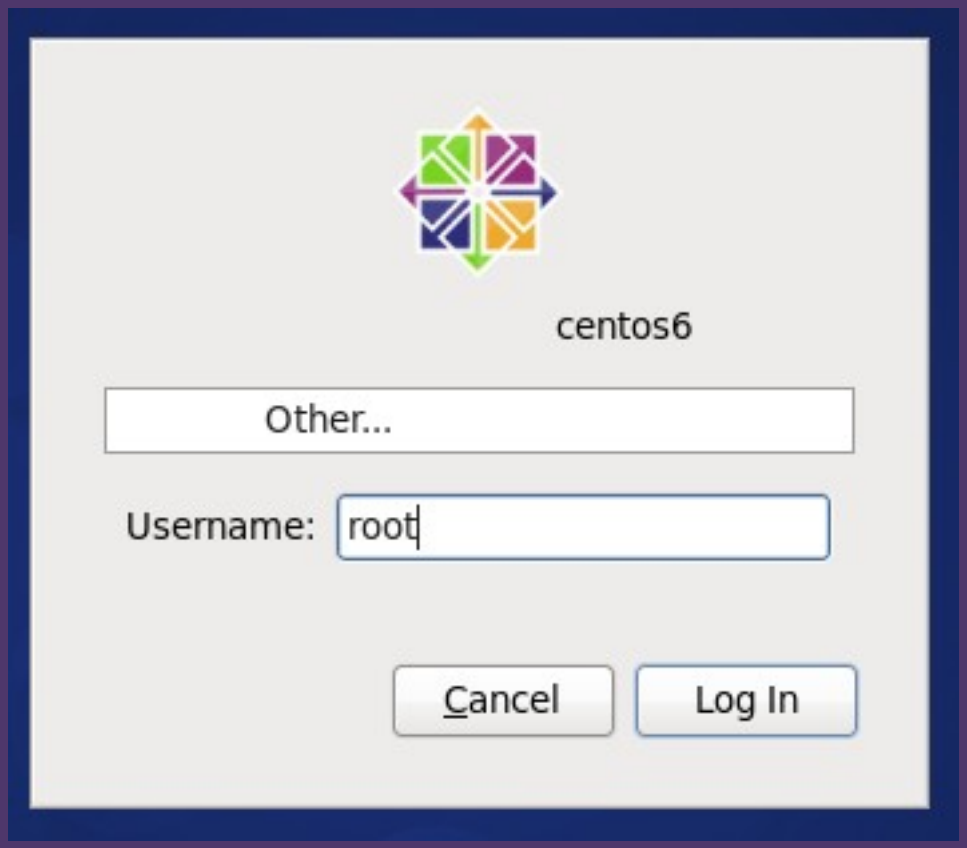
  Press PrintScreen

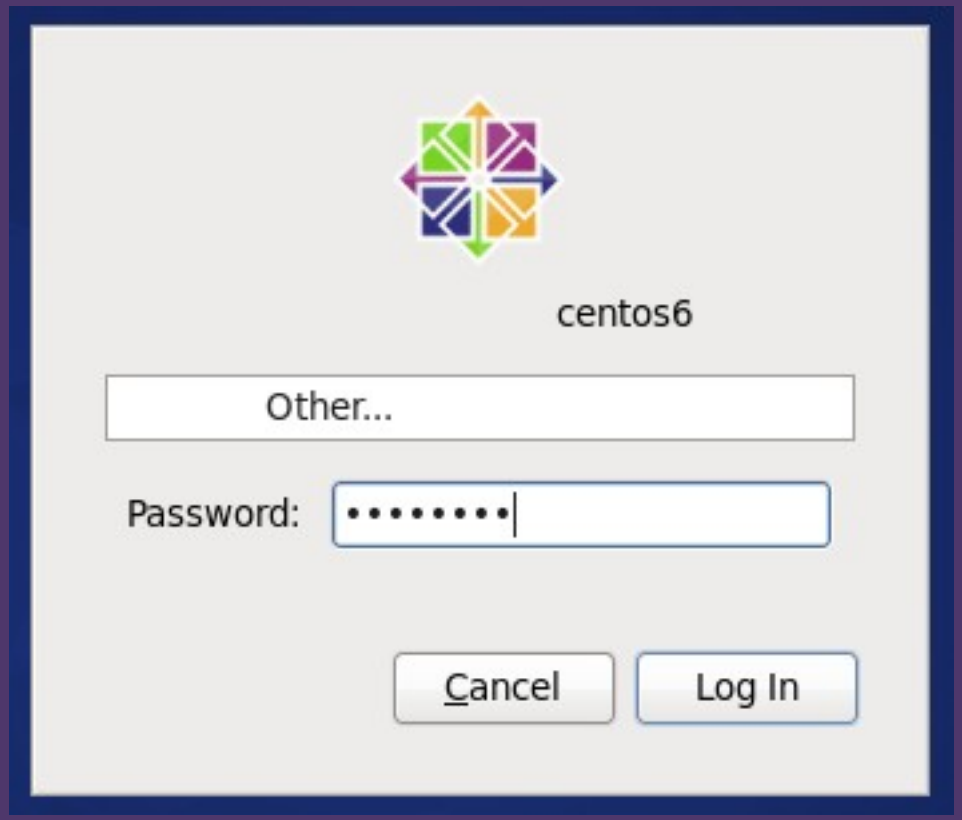
- **Current Window**

  Press ALT+PrintScreen

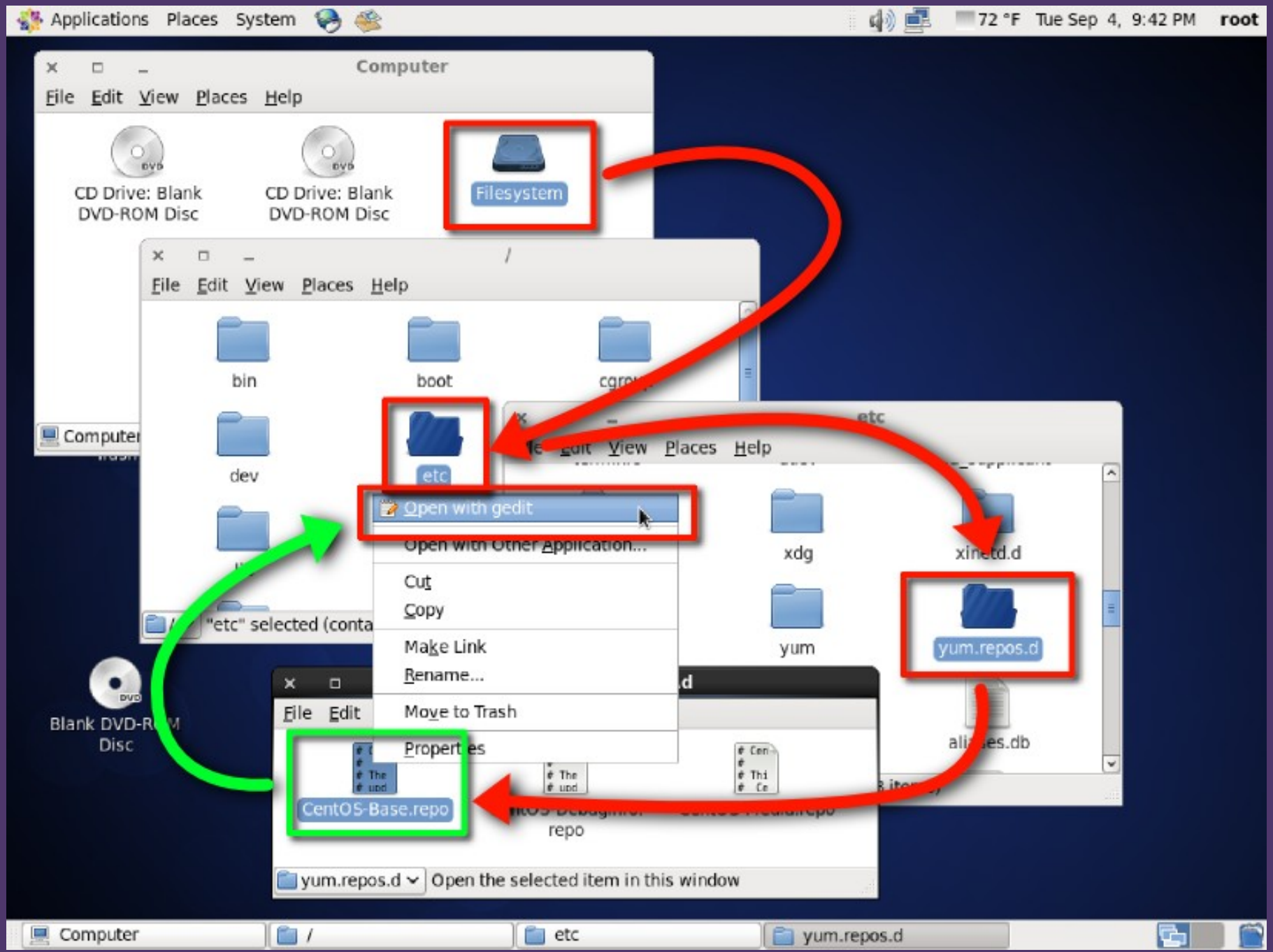
Edit the YUM Repository files
redux

- Login as root





Edit the YUM Repository files



Edit the YUM Repository files

- Comment out the Mirrorlist with a # sign

```
[base]
name=CentOS-$releasever - Base
#mirrorlist=http://mirrorlist.centos.org/?release=
#baseurl=http://mirror.centos.org/centos/$releasever/os/$basearch/
gpgcheck=1
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-6
enabled=0
```

Edit the YUM Repository files

- Change the GPG Check to 0

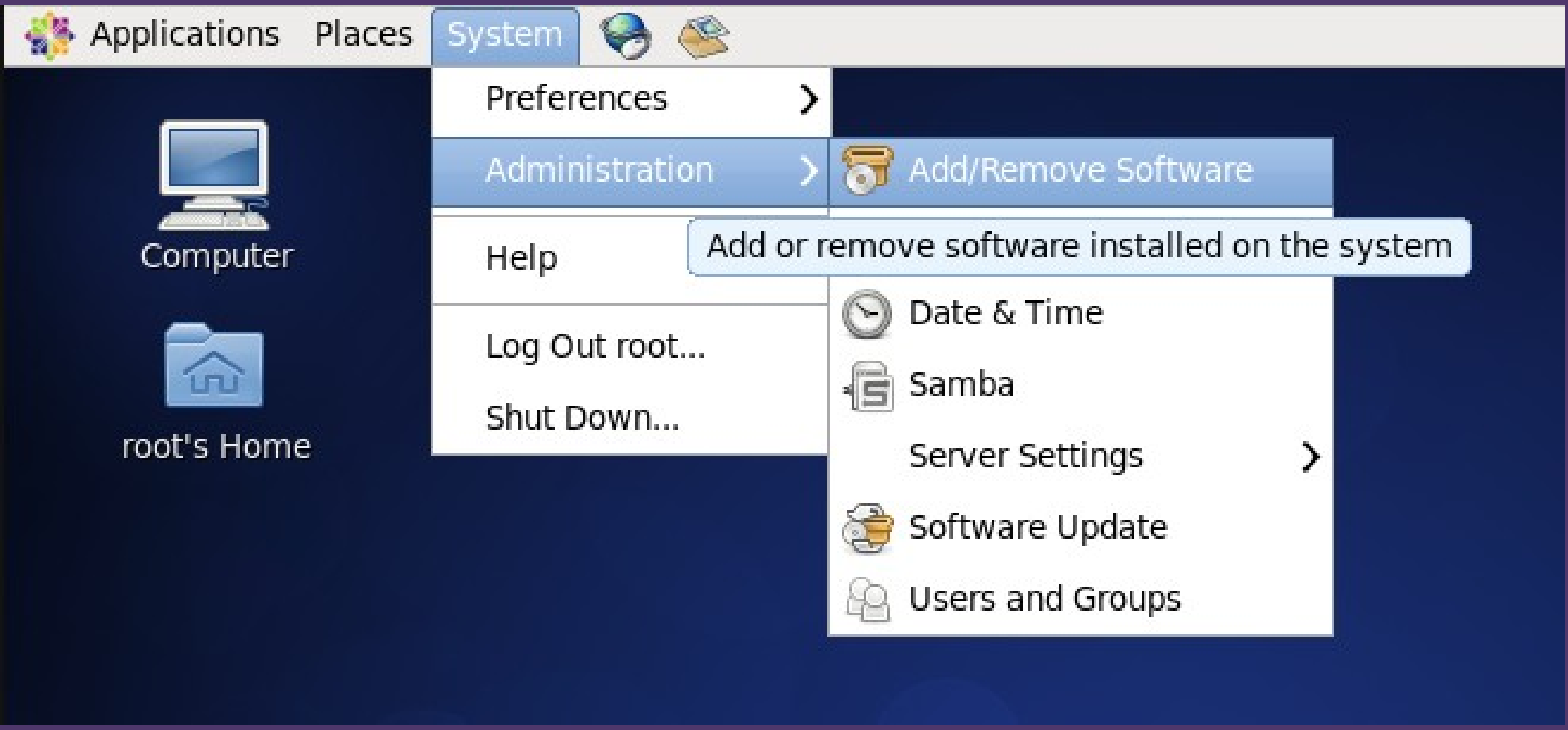
```
[base]
name=CentOS-$releasever - Base
#mirrorlist=http://mirrorlist.centos.org/?
release=$releasever&arch=$basearch&repo=os
#baseurl=http://mirror.centos.org/centos/$releasever/os/$basearch/
gpgcheck=0
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-6
enabled=0
```

Edit the YUM Repository files

- Set the Base URL to the in-class server

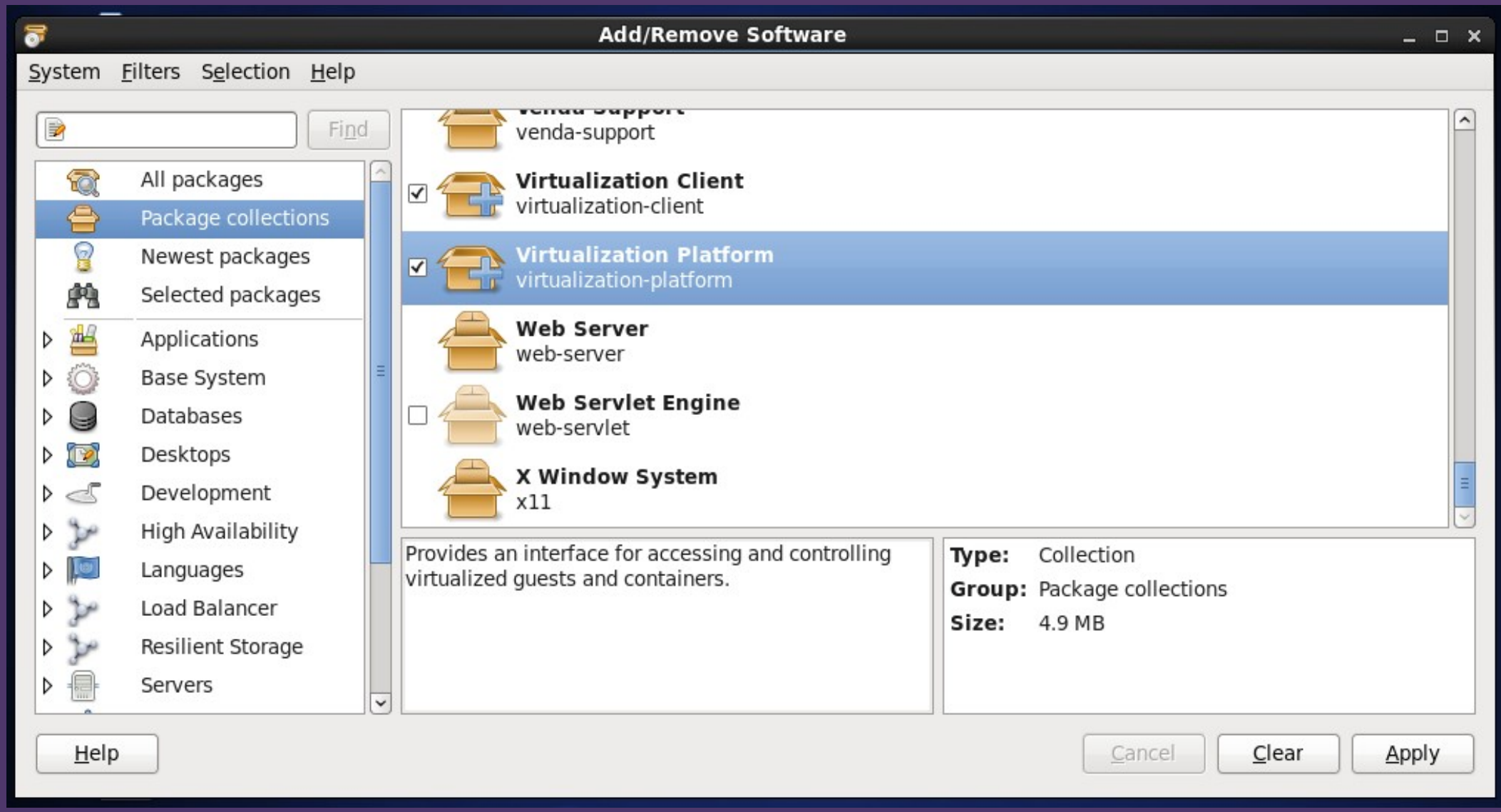
```
[base]
name=CentOS-$releasever - Base
#mirrorlist=http://mirrorlist.centos.org/?
release=$releasever&arch=$basearch&repo=os
baseurl=http://192.168.7.7/repos/centos/$releasever/os/
$basearch/
gpgcheck=0
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-CentOS-6
enabled=0
```

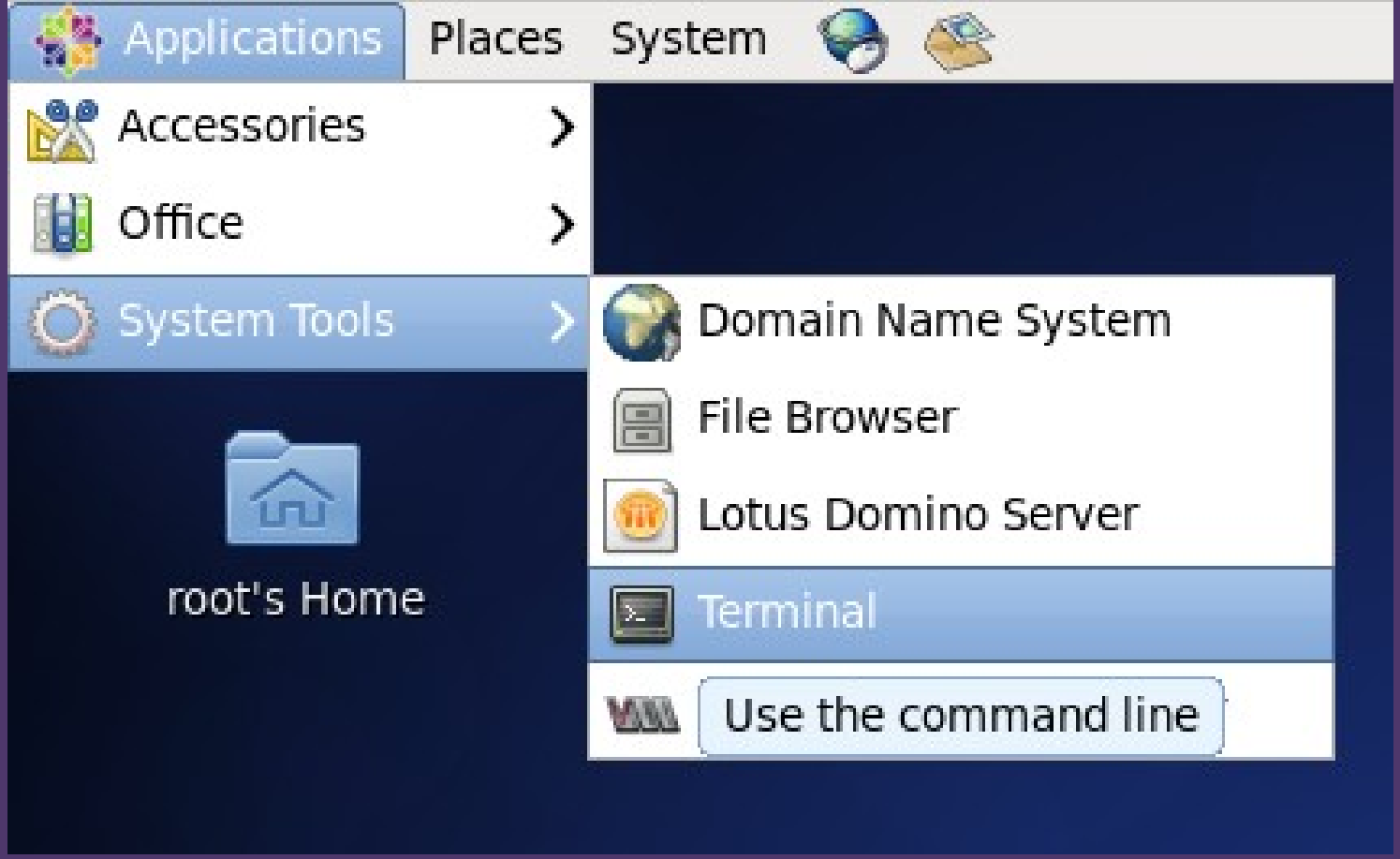
Add / Remove Software



Runing as root Warning

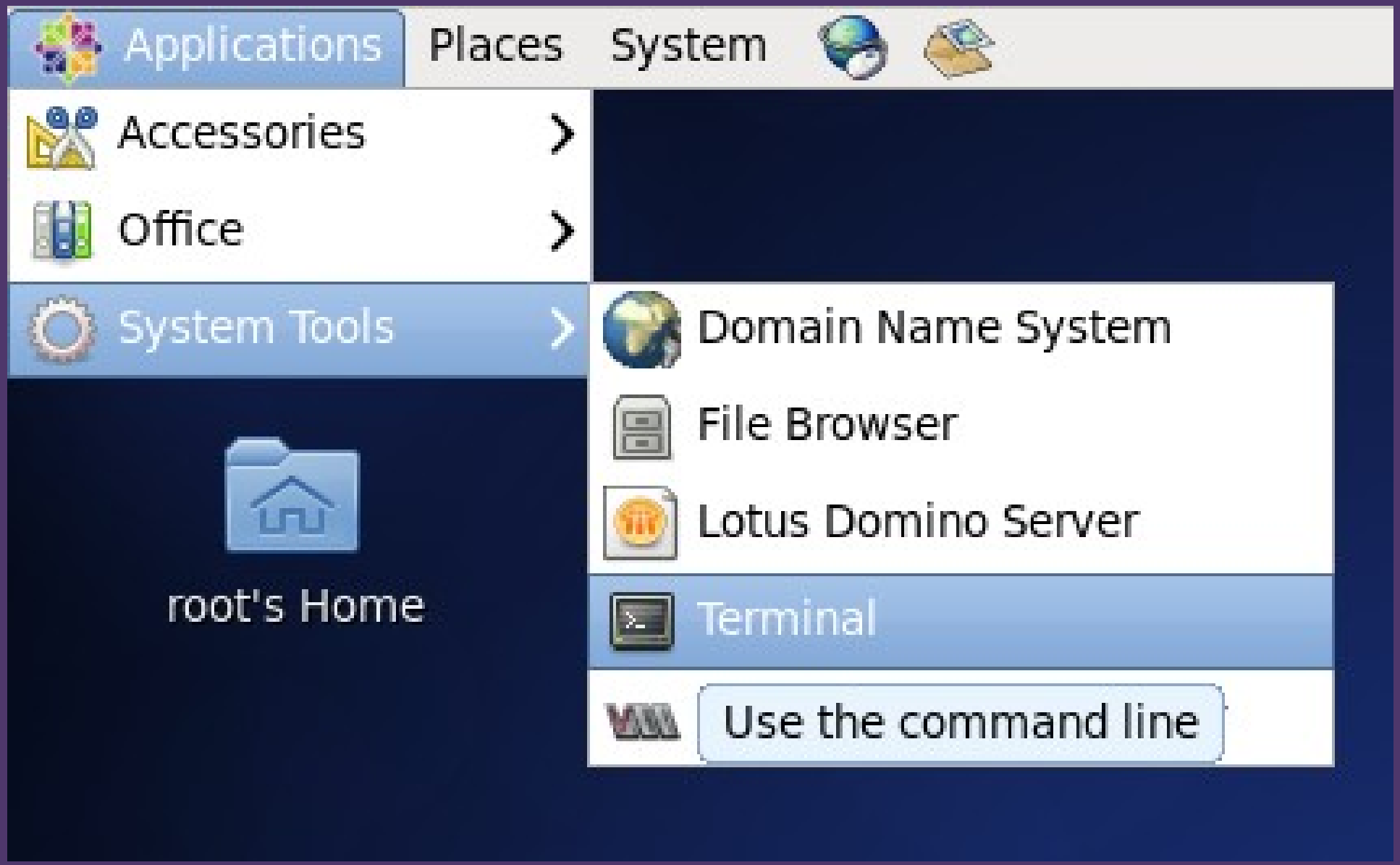
Add the Virtualization Package Collections



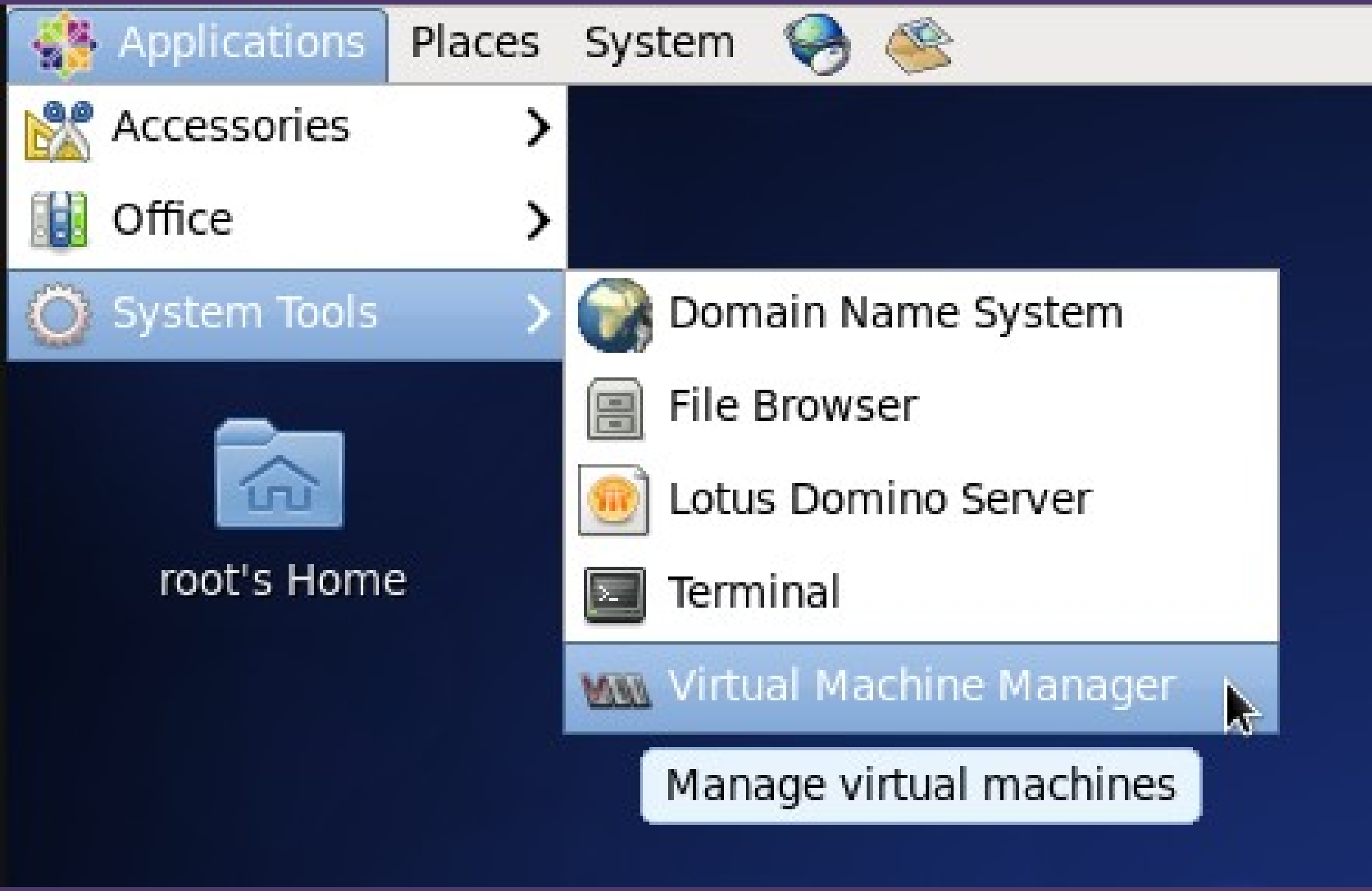


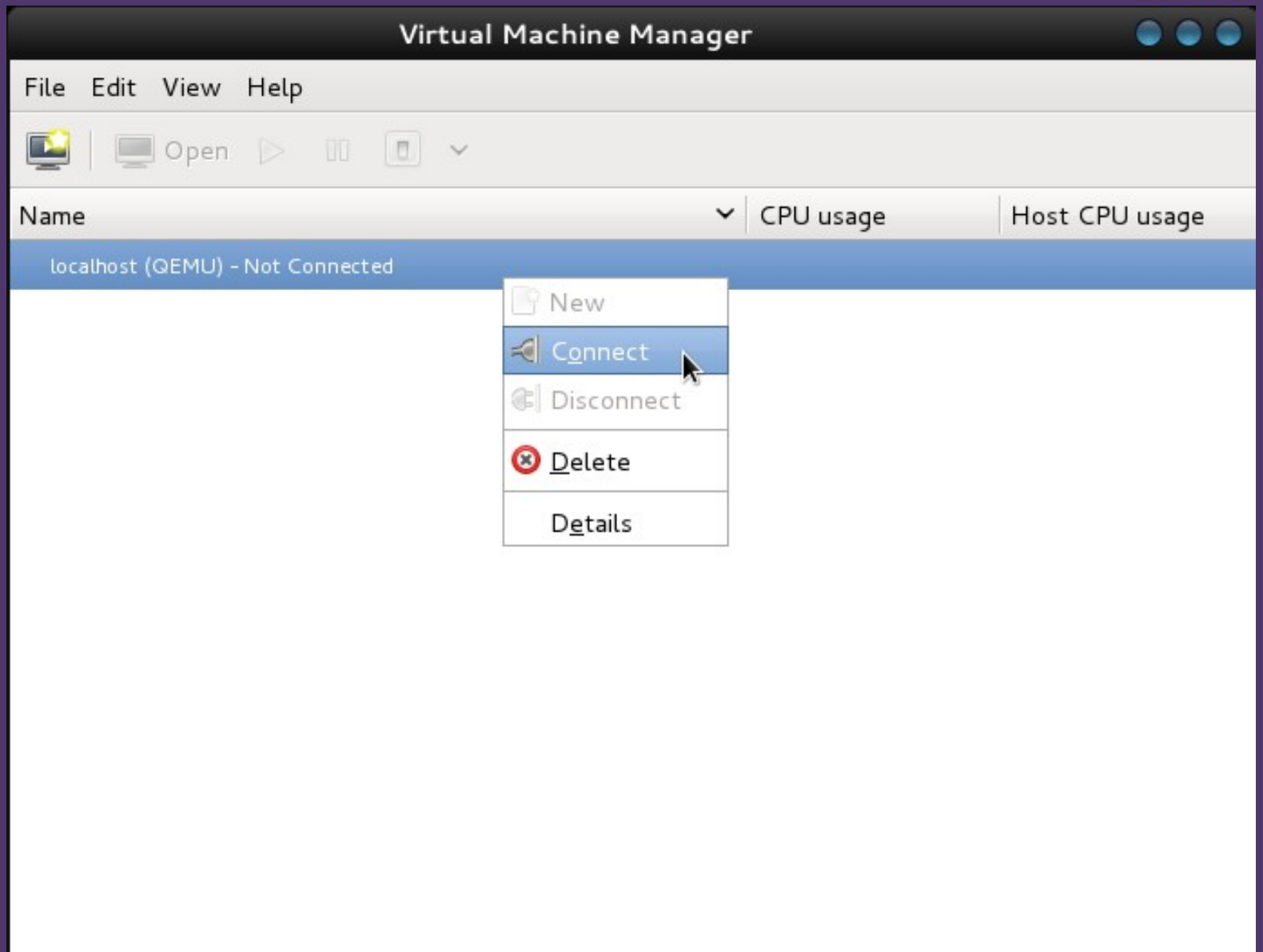
yum groupinstall “Virtualization”
yum groupinstall “Virtualization Tools”
yum groupinstall “Virtualization Platform”
yum groupinstall “Virtualization Client”

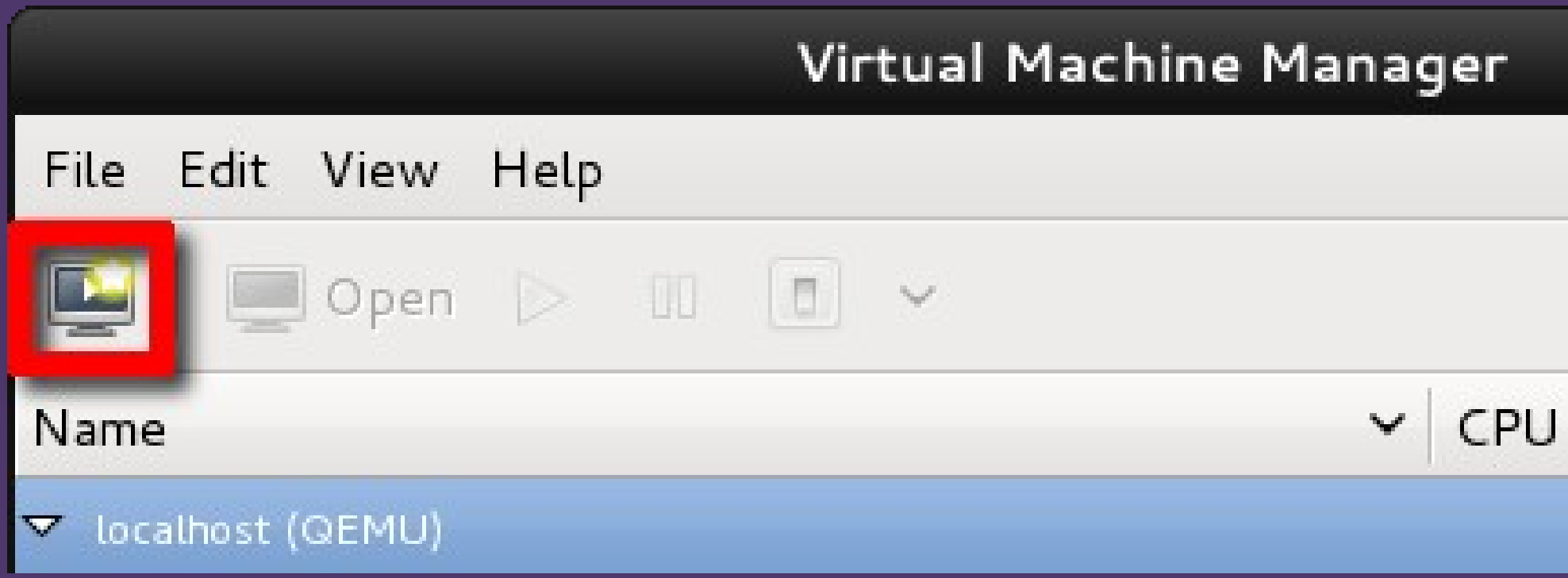
Launch Terminal

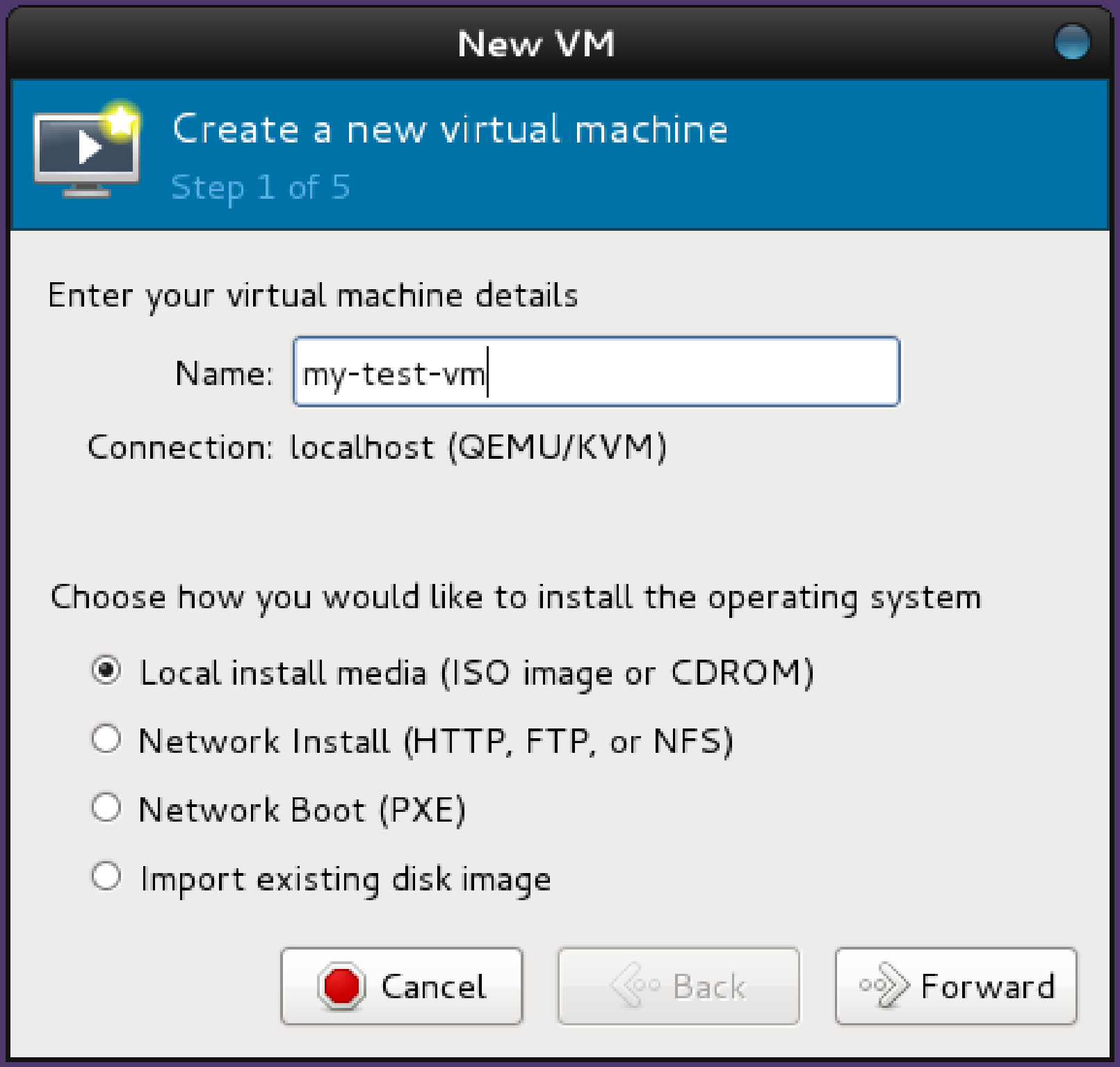


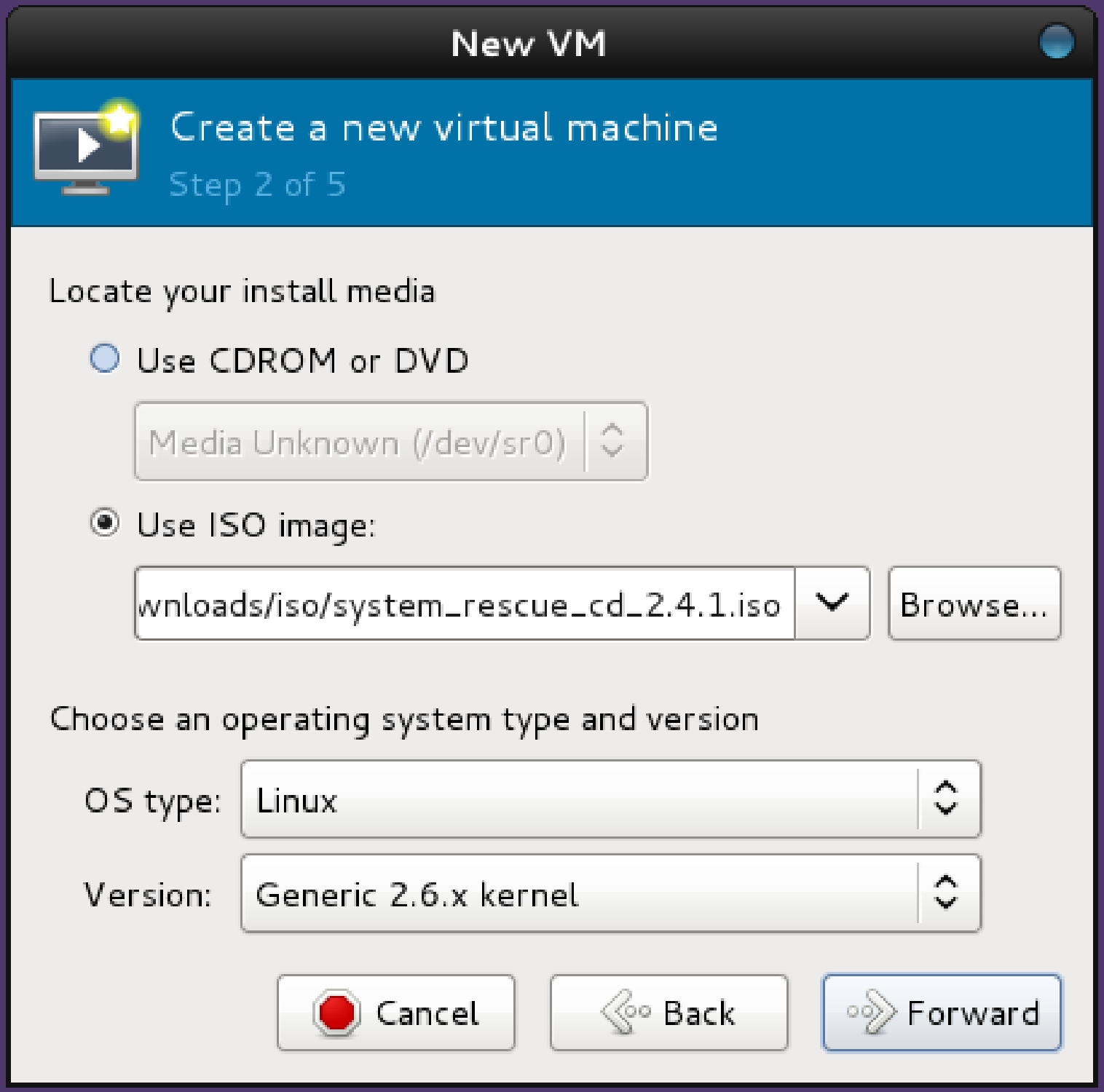
Virtualization!

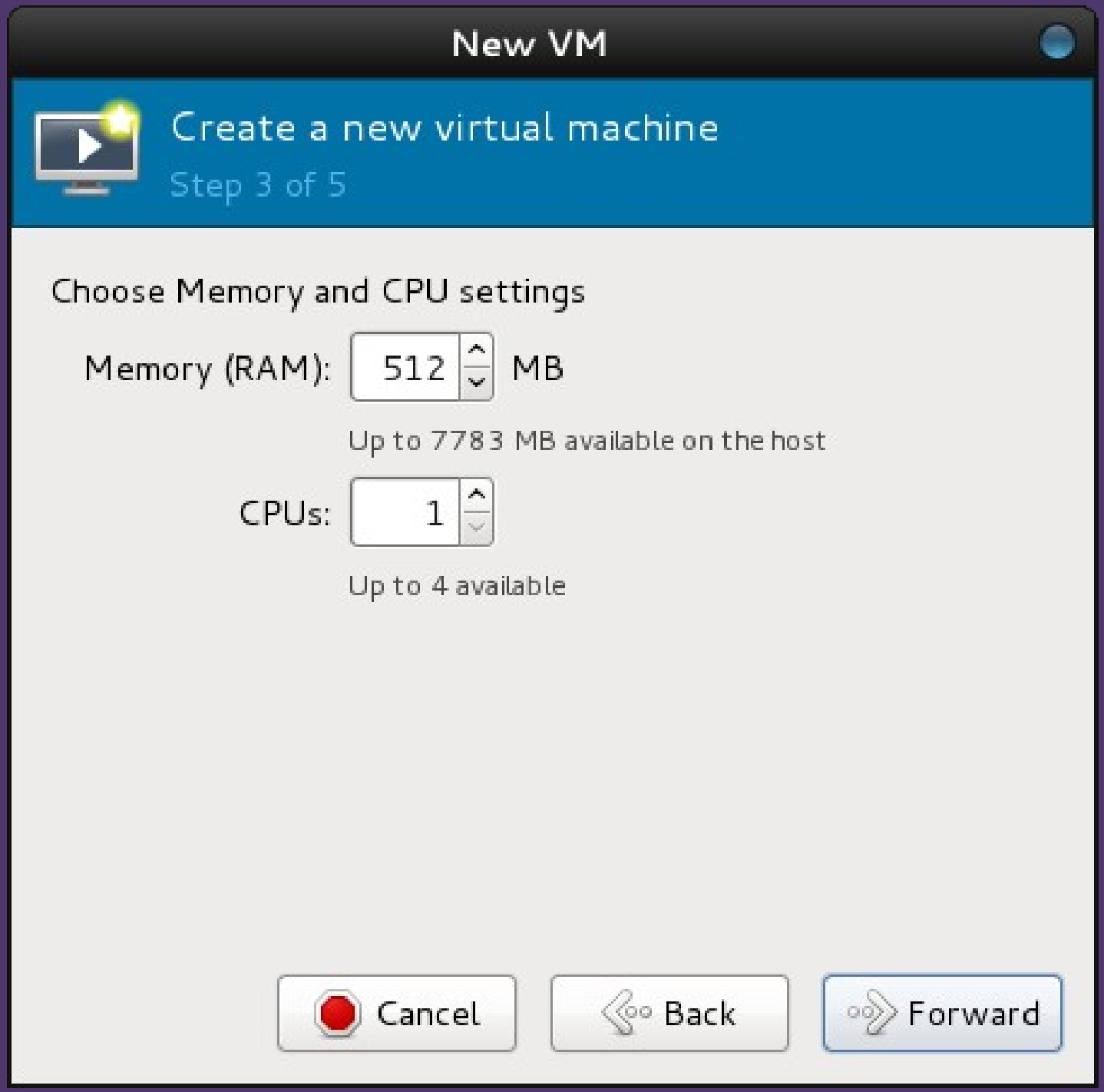

Applications
Places
System
Accessories
Office
System Tools
Domain Name System
File Browser
Lotus Domino Server
Terminal
Virtual Machine Manager
root's Home
Manage virtual machines


Virtual Machine Manager
File
Edit
View
Help
Open
Name
CPU usage
Host CPU usage
localhost (QEMU) - Not Connected
New
Connect
Disconnect
Delete
Details

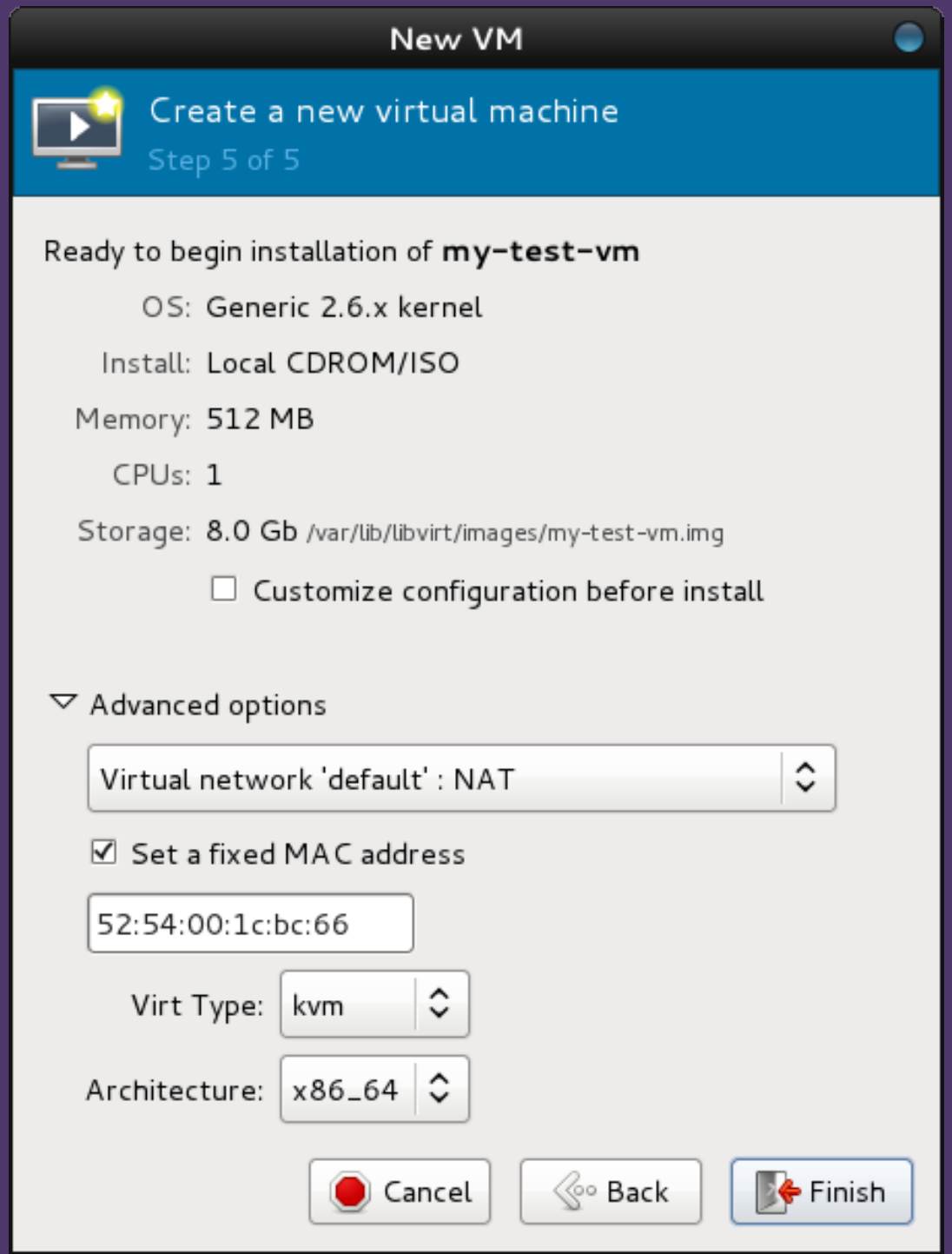

Virtual Machine Manager
File
Edit
View
Help
Open
Name
CPU
localhost (QEMU)


New VM
Create a new virtual machine
Step 1 of 5
Enter your virtual machine details
Name:
my-test-vm
Connection: localhost (QEMU/KVM)
Choose how you would like to install the operating system
Local install media (ISO image or CDROM)
Network Install (HTTP, FTP, or NFS)
Network Boot (PXE)
Import existing disk image
Cancel
Back
Forward


New VM
Create a new virtual machine
Step 2 of 5
Locate your install media
Use CDROM or DVD
Media Unknown (/dev/sr0)
Use ISO image:
wnloads/iso/system_rescue_cd_2.4.1.iso
Browse...
Choose an operating system type and version
OS type:
Linux
Version:
Generic 2.6.x kernel
Cancel
Back
Forward


New VM
Create a new virtual machine
Step 3 of 5
Choose Memory and CPU settings
Memory (RAM):
512
MB
Up to 7783 MB available on the host
CPUs:
1
Up to 4 available
Cancel
Back
Forward

New VM
Create a new virtual machine
Step 4 of 5
Enable storage for this virtual machine
Create a disk image on the computer's hard drive
8.0
GB
33.5 Gb available in the default location
Allocate entire disk now
Select managed or other existing storage
Browse...
Cancel
Back
Forward


New VM
Create a new virtual machine
Step 5 of 5
Ready to begin installation of my-test-vm
OS: Generic 2.6.x kernel
Install: Local CDROM/ISO
Memory: 512 MB
CPUs: 1
Storage: 8.0 Gb /var/lib/libvirt/images/my-test-vm.img
Customize configuration before install
Advanced options
Virtual network 'default' : NAT
Set a fixed MAC address
52:54:00:1c:bc:66
Virt Type: kvm
Architecture: x86_64
Cancel
Back
Finish

Ubuntu 10.04 LTS

Install in a VM

ubuntu 10.04

lucid lynx

ubuntu-lucid Virtual Machine

File Virtual Machine View Send Key

ubuntu

Try Ubuntu without installing
Install Ubuntu
Check disc for defects
Test memory
Boot from first hard disk

F1 Help F2 Language F3 Keymap F4 Modes F5 Accessibility F6 Other Options

ubuntu-lucid Virtual Machine

File Virtual Machine View Send Key

Install

English
Español
Esperanto
Euskara
Français
Gaeilge
Galego
Hrvatski
Italiano
Kurdî
Latviski
Lietuviškai
Magyar
Nederlands
Norsk bokmål
Norsk nynorsk
Polski
Português

Welcome

Ready to install? Once you answer a few questions, the contents of the live CD can be installed on this computer so you can run Ubuntu 10.04.4 LTS at full speed without the CD.

Answering the questions should only take a few minutes.

Step 1 of 7

Quit Back Forward

ubuntu-lucid Virtual Machine

File Virtual Machine View Send Key

Install

Where are you?

Select your location, so that the system can use appropriate display conventions for your country, fetch updates from sites close to you, and set the clock to the correct local time.

Region: United States

Time Zone: United States (New York)

Step 2 of 7

Quit Back Forward

ubuntu-lucid Virtual Machine

File Virtual Machine View Send Key

Install

Keyboard layout

Which layout is most similar to your keyboard?

- (•) Suggested option: USA
- ( ) Guess keymap: Guess...
- ( ) Choose your own:

Tanzania
Thailand
Turkey
Turkmenistan
USA
Ukraine
United Kingdom
Uzbekistan
Vietnam

USA
USA - Alternative international (form
USA - Cherokee
USA - Classic Dvorak
USA - Colemak
USA - Dvorak
USA - Dvorak international
USA - Group toggle on multiply/divid
USA - International (AltGr dead keys

You can type into this box to test your new keyboard layout.

Step 3 of 7

Quit Back Forward

ubuntu-lucid Virtual Machine

File Virtual Machine View Send Key

Install

Prepare disk space

This computer has no operating systems on it.

Where do you want to put Ubuntu 10.04.4 LTS?

- (●) Erase and use the entire disk

  Virtual disk 1 (vda) - 8.6 GB Virtio Block Device

- ( ) Specify partitions manually (advanced)

Ubuntu 10.04.4 LTS

Step 4 of 7

Quit Back Forward

ubuntu-lucid Virtual Machine

File Virtual Machine View Send Key

Install

Who are you?

What is your name?

cpt201-ubuntu-lucid-dph

What name do you want to use to log in?

cpt201-ubuntu-lucid-dph

If more than one person will use this computer, you can set up multiple accounts after installation.

Choose a password to keep your account safe.

●●●●●●●● ●●●●●●●● Strength: strong

What is the name of this computer?

cpt201-ubuntu-lucid-dph

This name will be used if you make the computer visible to others on a network.

- ○ Log in automatically
- ◉ Require my password to log in
- ○ Require my password to log in and to decrypt my home folder

Step 5 of 7

Quit Back Forward

ubuntu-lucid Virtual Machine

File Virtual Machine View Send Key

Install

Ready to install

Your new operating system will now be installed with the following settings:

Language: English
Keyboard layout: USA
Name: cpt201-ubuntu-lucid-dph
Login name: cpt201-ubuntu-lucid-dph
Location: America/New_York
Migration Assistant:

If you continue, the changes listed below will be written to the disks.
Otherwise, you will be able to make further changes manually.

The partition tables of the following devices are changed:
Virtual disk 1 (vda)

The following partitions are going to be formatted:
partition #1 of Virtual disk 1 (vda) as ext4

Advanced...

Step 7 of 7

Quit Back Install

ubuntu-lucid Virtual Machine

File Virtual Machine View Send Key

Installing system

Welcome

- Thank you for choosing Ubuntu 10.04 LTS.
- This release marks a major milestone in the Ubuntu project. It is easier and more reliable than ever, with hundreds of improvements including a new video editor, integrated social networking and a growing selection of extra software.
- Whether you're new to Ubuntu or a long-time user, we're sure there is something you will enjoy. While Ubuntu is installed, this slideshow will show you around.

Ubuntu is designed to be easy. Feel free to explore!

Creating ext4 file system for / in partition #1 of Virtual disk 1 (vda)...

5%

ubuntu-lucid Virtual Machine

File Virtual Machine View Send Key

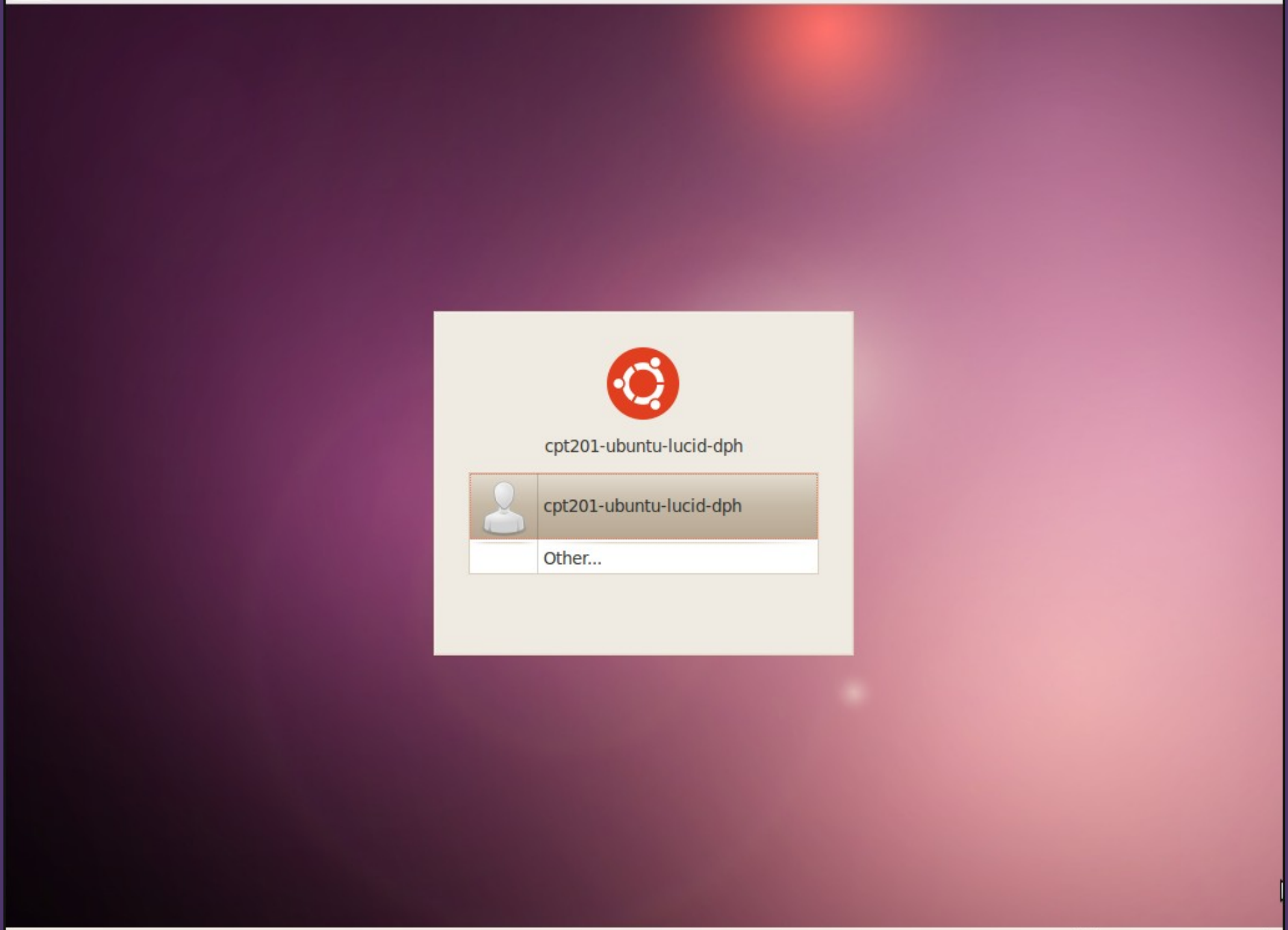
Installation Complete

Installation is complete. You need to restart the computer in order to use the new installation.

Restart Now

ubuntu-lucid Virtual Machine

File Virtual Machine View Send Key



ubuntu-lucid Virtual Machine

File Virtual Machine View Send Key

cpt201-ubuntu-lucid-dph

cpt201-ubuntu-lucid-dph

Password: ●●●●●●●●

Cancel Log In

Language: English (United States) Keyboard: USA Sessions: GNOME Fri 1:38 PM

Ubuntu 12.04 LTS

Install in a VM

ubuntu-precise Virtual Machine

File Virtual Machine View Send Key

Install

Welcome

Asturianu
Bahasa Indonesia
Bosanski
Català
Čeština
Dansk
Deutsch
Eesti
English
Español
Esperanto
Euskara
Français
Gaeilge
Galego
Hrvatski
Íslenska
Italiano

Try Ubuntu

Install Ubuntu

You can try Ubuntu without making any changes to your computer, directly from this CD.

Or if you're ready, you can install Ubuntu alongside (or instead of) your current operating system. This shouldn't take too long.

You may wish to read the release notes.

ubuntu-precise Virtual Machine

File Virtual Machine View Send Key

Install

Preparing to install Ubuntu

For best results, please ensure that this computer:

- ✓ has at least 4.4 GB available drive space
- ✓ is connected to the Internet

☐ Download updates while installing

Ubuntu uses third-party software to display Flash, MP3 and other media, and to work with some wireless hardware. Some of this software is closed-source. The software is subject to the license terms included with the software's documentation.

☐ Install this third-party software

Fluendo MP3 plugin includes MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Technicolor SA.

Quit Back Continue

ubuntu-precise Virtual Machine

File Virtual Machine View Send Key

Install

Installation type

This computer currently has no detected operating systems. What would you like to do?

- Erase disk and install Ubuntu
  Warning: This will delete any files on the disk.
- Something else
  You can create or resize partitions yourself, or choose multiple partitions for Ubuntu.

Quit Back Continue

ubuntu-precise Virtual Machine

File Virtual Machine View Send Key

Install

Erase disk and install Ubuntu

Select drive: Virtual disk 1 (vda) - 8.6 GB Virtio Block Device

The entire disk will be used:

Ubuntu
/dev/vda (ext4)
8.6 GB

Quit Back Install Now

ubuntu-precise Virtual Machine

File Virtual Machine View Send Key

Install

Where are you?

New York

Back Continue

Copying files...

ubuntu-precise Virtual Machine

File Virtual Machine View Send Key

Install

Keyboard layout

Choose your keyboard layout:

English (Ghana)	English (US)
English (Nigeria)	English (US) - Cherokee
English (South Africa)	English (US) - English (Colemak)
English (UK)	English (US) - English (Dvorak alternative internation
English (US)	English (US) - English (Dvorak international with deac
Esperanto	English (US) - English (Dvorak)
Estonian	English (US) - English (Macintosh)
Faroese	English (US) - English (US, alternative international)
Filipino	English (US) - English (US, international with dead key

Type here to test your keyboard

Detect Keyboard Layout

Back Continue

Copying files...

ubuntu-precise Virtual Machine

File Virtual Machine View Send Key

Install

Who are you?

Your name: cpt201-ubuntu-precise-dph

Your computer's name: isedph-virtual-machine

The name it uses when it talks to other computers.

Pick a username: cpt201-ubuntu-pre

Choose a password: ●●●●●●●● Strong password

Confirm your password: ●●●●●●●●

- Log in automatically
- Require my password to log in
- Encrypt my home folder

Back Continue

ubuntu-precise Virtual Machine

File Virtual Machine View Send Key

Install

Welcome to Ubuntu 12.04 LTS

Fast and feature-packed, Ubuntu makes your PC a delight to use. And with the latest version of the Unity interface, it's now easier than ever. Here are a few more cool new things to look out for.

Retrieving file 12 of 45 (26s remaining)

ubuntu-precise Virtual Machine

File Virtual Machine View Send Key

Installation Complete

Installation is complete. You need to restart the computer in order to use the new installation.

Restart Now

ubuntu-precise Virtual Machine

File Virtual Machine View Send Key

cpt201ubuntuprecisedph-virtual-machine en 2:18 PM

cpt201-ubuntu-precise

Guest Session

ubuntu® 12.04 LTS

Canonical and Ubuntu

- 9.04, Ubuntu Netbook remix released with Unity
- Up to 10.10, uses Gnome 2 Desktop
- 11.04, switches to Unity Desktop

Ubuntu Releases

Version	Code name	Release date	Supported until	
			Desktop	Server
4.10	Warty Warthog	2004-10-20	2006-04-30	
5.04	Hoary Hedgehog	2005-04-08	2006-10-31	
5.10	Breezy Badger	2005-10-13	2007-04-13	
6.06 LTS	Dapper Drake	2006-06-01	2009-07-14	2011-06-01
6.10	Edgy Eft	2006-10-26	2008-04-25	
7.04	Feisty Fawn	2007-04-19	2008-10-19	
7.10	Gutsy Gibbon	2007-10-18	2009-04-18	
8.04 LTS	Hardy Heron	2008-04-24	2011-05-12	2013-04
8.10	Intrepid Ibex	2008-10-30	2010-04-30	
9.04	Jaunty Jackalope	2009-04-23	2010-10-23	
9.10	Karmic Koala	2009-10-29	2011-04-30	
10.04 LTS	Lucid Lynx	2010-04-29	2013-04	2015-04
10.10	Maverick Meerkat	2010-10-10	2012-04-10	
11.04	Natty Narwhal	2011-04-28	2012-10	
11.10	Oneiric Ocelot	2011-10-13	2013-04	
12.04 LTS	Precise Pangolin	2012-04-26	2017-04	
12.10	Quantal Quetzal	2012-10-18	2014-04	

Color	Meaning
Red	Release no longer supported
Green	Release still supported
Blue	Future release

Flavors

- Ubuntu (with Unity)
- Xubuntu (with Xfce)
- Kubuntu (with KDE)
- EduBuntu (designed for Education)
- UbuntuStudio (designed for media creators)

Mark Shuttleworth

- 1990's : Debian Developer
- 1995 : founds Thawte
- 1999 : Sells Thawte to Verisign
- 2000 : Forms an investment firm
- 2002 : Goes to Space
- 2004 : Forms Canonical

Robbie Williamson

- Director of Ubuntu Server Engineering at Canonical
- Located in Austin, TX
- Twitter: http://twitter.com/undacuvabrutha
- Blog: http://undacuvabrutha.wordpress.com/

Skillsets in an Ubuntu Server developer

- beyond the knowledge of how Linux server distros are put together (with Debian and/or Ubuntu experience being preferred)
- Python and/or C coding
- application packaging
- using Launchpad and Bazaar
- bug triage and fixing
- QA practices
- community interaction
- there are a few that rank high:
- Developer experience and understanding of key opensource cloud infrustructure technologies, i.e. Eucalyptus and OpenStack
- Familiarity with complex configurations for enterprise deployments:
- Turn-key applications ready to run in the cloud: Drupal, WordPress, Zimbra, Alfresco, MediaWiki, OpenBravo, Moodle,etc
- Application platforms to develop for the cloud: LAMP, Hadoop, Rails, Django, etc
- Infrastructure services used by cloud applications: Amazon S3, SimpleDB, RabbitMQ/SQS,etc
- Experience with large-scale, rapid deployments of servers (bare metal or virtual)
- Virtualization, specifically around KVM deployments
- Plus the ability to work in a fast-paced (we release every 6 months) distributed environment from home, react quickly to change, travel the world when required, and have fun while doing it ;)

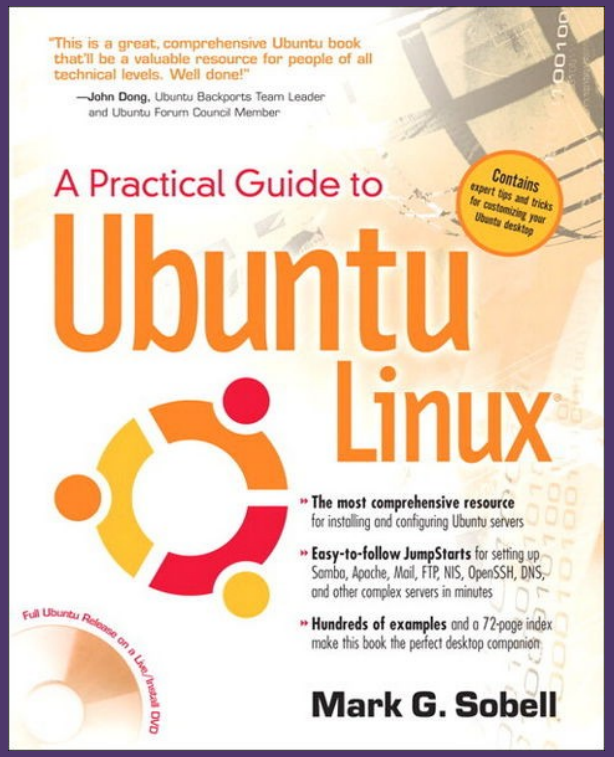
Ubuntu TV

watch video

Ubuntu for Android

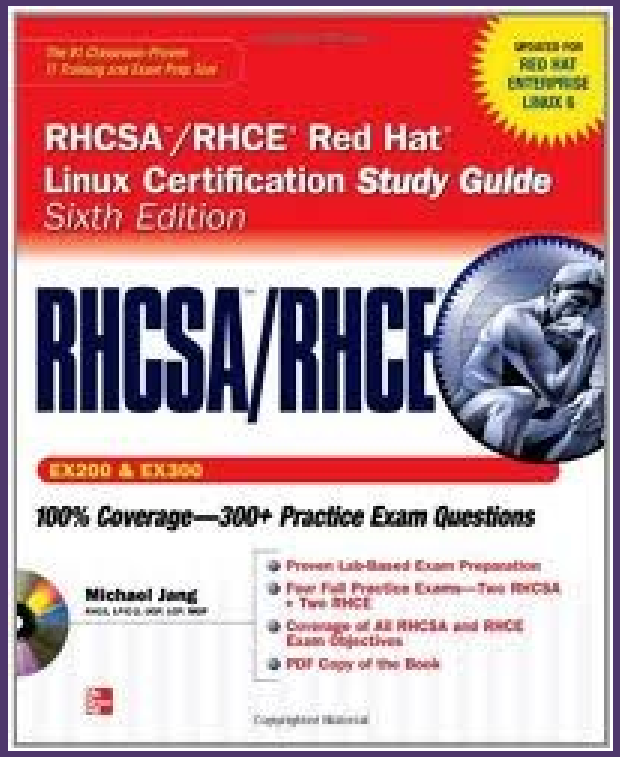
watch video

Homework



Chapter 5
The Linux Utilities

/or/



Chapter 3
Fundamental Commandline Skills